

Triple Bottom Line

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The concept of *Triple Bottom Line* is widely discussed, but poorly understood. Mostly, the concept is idealistic and somewhat simplistic. This is by no means a criticism of John Elkington, Chairman of SustainAbility in the UK, who coined the phrase almost ten years ago. It's a notion that has been used well to bring to par environmental and social issues that are usually not integrated into decision-making processes. But, for the most part, it has simplified a complex concept, and highlighted the significant issue of trade-offs. Let me explain.

Take a car manufacturer. The company would emit some emissions (allowable under a regulated limit), use large quantities of water purchased at very reasonable prices, and produce large quantities of solid and liquid waste and dispose at very reasonable landfill costs. The emissions to atmosphere, the use of limited resources such as water, and the disposal of solid and liquid waste at negligible costs (compared to other operational costs) are all examples of environmental 'externalities' that are not properly priced in today's economy. This is where the issue of trade-offs begins.

Under the notion of the *Triple Bottom Line*, the car manufacturer should equally consider environmental, social and economic conditions in decision-making processes. The question, which emerges, is how? If indeed such environmental externalities as water use, atmospheric absorption capacity and landfill space are not appropriately priced, and internalised, treatment of environmental, social and economic dimensions of sustainability on an equal footing is impossible. This simple example is not adequate to demonstrate the complexities surrounding the notion of *Triple Bottom Line*, but is merely intended to be a thought-starter.

The complex world of sustainability externalities gets even more complicated due to intangibles – externalities that cannot readily be quantified into monetary values such as the value of a species of frog that is a threatened species, and which is in the way of expansion of the car manufacturing plant. Social issues are also mostly unquantifiable. At which point trade-offs cannot even begin, and the *Triple Bottom Line* is just a theory.

It is important that engineers work alongside scientists, economists, social scientists and accountants to better understand the implications of trading across three dimensions. In a world where an accountant barely knows what an engineer does, and vice versa, we are not well placed to start this journey.